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ABSTRACT

An investigation of the relationship between high school priorities and self-concept was undertaken. Upper- and underclassmen from large and small high schools completed questionnaires and the Piers-Harris Children's Self-Concept Scale. Participation in five activity areas was related to self-concept scores using a multiple-regression technique. The perceived similarity of each student's priorities with the school's priorities was also correlated with self-concept. The relationships accounting for the greatest proportion of the variance in self-concept scores were found among small-school upperclassmen. The results were interpreted as support for Barker and Gump's argument that small school students feel a greater obligation to participate in school activities. (Author)

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BIG SCHOOL, SMALL SCHOOL: IMPACT OF THE HIGH SCHOOL ENVIRONMENT

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Big School, Small School: Impact of the High School Environment

The immediate theoretical context for the present study is an amplification of Barker's (1964) theory concerning the relationship between school size and the behavior of students. Barker argued that student participation could be explained in terms of the number of available activities and the number of students in the institution. If the ratio of students to activities falls below a certain criterion, increased pressure is hypothesized to be exerted upon possible participants in order to maintain or produce the necessary membership. As the criterion is less likely to be met in smaller schools, these schools must place more pressure on their students. In support of this position, Barker and others have produced the following evidence. Small school students are more likely to: (a) participate in more activities (Barker & Gump, 1964; Baird, 1969), (b) take part in a greater diversity of activities (Barker & Gump, 1964), and (c) experience a greater sense of obligation to participate (Willems, 1967). The present research investigates the manner in which these factors may influence feelings of personal worth.

Few authors have attempted to relate participation in school sponsored activities and feelings of personal worth. In an early study of the adolescent peer group, Coleman (1961) found that participation in valued school activities was related to greater peer approval and satisfaction with one's role. More recently, Rosenberg (1965) has been able to demonstrate a relationship between measured self-concept and participation in school activities. Neither of these authors related such results to the type of school the students were attending. Such an effort would provide further insight into how the school environment influences students.

The present research and hypotheses can be briefly summarized. High school males were asked to complete a self-concept scale and questionnaire. The questionnaire gathered data indicating school and personal activity priorities, and the amount of participation in each activity area. It was predicted that in comparison to students from large schools, small school students would participate in more activities, in a greater range of activities and that this participationg would account for more of the variance in self-concept scores when entered as predictors in a multiple-regression equation. In addition, a discrepancy score was computed between a student's priorities and his perceptions of his friends' priorities. Correlations between this priority discrepancy score and self-concept were predicted to be the greatest among small school students.

METHOD

Subjects

The subjects were 1058 males attending 12 different Iowa high schools. These schools represent sixty-seven percent of the schools originally contacted to participate in this study. Four of these schools were classified as large and the remaining eight as small. A school was designated as large if the total enrollment in the upper three grades exceeded 580. All schools were public institutions. The small schools and one large school drew their students from a rural population. Of the remaining large schools, two were located in intermediate sized and one in a larger sized Iowa city.

Questionnaires[1] were administered across grades 9-12 in the small schools and 10-12 in the larger schools. The subjects were grouped for analysis as upperclassmen (11 and 12 grades) and underclassmen (9 and 10 grades). A total of 286 underclassmen and 256 upperclassmen were selected as available from the

small schools. A total sample of 148 underclassmen and 368 upperclassmen participated from the larger schools. All testing was completed during the Spring portion of the year.

Measures

Self-concept was assessed using the Piers-Harris Children's Self-Concept Scale. This scale was selected because it can be quickly administered and it has shown high reliability across the grade levels studied (Piers, 1969).

Student priorities were obtained by having the student rank his personal preference for the following activity areas: academic, athletic, social, clubs and fine arts. Examples of each group were included on the questionnaire. Perceived school priorities were obtained by having the student rank the same group of activities as "most students in your school" would.

The number of activities each student participated in during the past year was obtained by having the student complete a checklist of common activities. Blanks were provided for the student to indicate activities not found on the list.

Analyses

A 2 (school size) by 2 (class level) unequal-cell n analysis of variance was applied to the participation and diversity scores. The diversity scores were derived from the number of areas in which each student had participated. The student received a score ranging from zero to five corresponding to the number of areas in which the student had listed at least one activity. A separate analysis was performed on each activity area for the participation scores.

Participation scores for each of the five activity areas were also entered in a multiple-regression formula with self-concept scores as the dependent measure. All variables were entered into the equation simultaneously.

A regression equation was computed for each of the subgroups defined by the two by two factorial design.

Priority discrepancy scores were calculated using the profile similarity measure D advocated by Nunnaly (1967, p. 377). The two profiles to be compared represent the student's personal and perceived school activity priorities. Discrepancy scores were then correlated with the self-concept scores.

RESULTS

The results of the activity and diversity analyses replicate the earlier results reported (Barker & Gump, 1964; Baird, 1969). Small school students were involved in more activities in all areas with the exception of academic participation. There were no significant differences in this area. While upperclassmen were found to be more active in clubs and academic activities, underclassmen were more active in athletics. None of the interactions of class and school size reached a significant level. Activity means and F values are presented in Table 1.

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Insert Table 1 about here
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The analysis of the diversity of participation indicated that small school students participated in a greater variety of activities (F, 1/1054, $p < .01$). On the average, small school students participated in 2.3 activity areas and large school students participated in 1.6 activity areas. No other factors reached significance in this analysis.

As shown in Table 2, all of the multiple-regression equations were significant ($p < .01$). Of importance for present considerations were the differences in the amount of variability accounted for by the models. The

multiple-R varied from a value of .41 in the small school upperclassmen subgroup to a value of .30 in the large school upperclassmen subgroup.

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Insert Table 2 about here
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The correlation of D and self-concept was significant in both the large schools ($r = -.08$, $p < .01$) and the small schools ($r = -.13$, $p < .001$). The difference between these two correlations was not significant. The only other significant correlations were for the upperclassmen subgroups: small schools ($r = -.24$, $p < .01$) and large schools ($r = -.09$, $p < .05$). The correlation coefficient for the small school upperclassmen was significantly larger than that of the large school upperclassmen ($p < .01$) and is probably the only correlation to reach a level of practical significance. Because of the crudeness of the technique employed, the pattern rather than the magnitude of the correlation is of importance.

DISCUSSION

The participation frequency and participation diversity data from the present study replicate the earlier results of Barker and Gump (1964). In addition, the results concerning self-concept suggest an important expansion of the original theory. This expansion concerns the psychological impact of being able to meet the pressures exerted by peers toward participation in general and participation in certain activities in particular. Barker and Gump propose that participation is linked to school size in a rather mechanical fashion. They argue for the existence of ecological pressures and sensed obligations without indicating what the consequences of ignoring such demands would be. It is proposed in this study that feelings of personal worth are related to a student's ability to respond to the perceived demands of the high school environment.

Previous research had demonstrated that sensed obligations were related to school size (Willems, 1967). Intuitively, such results are easily understandable. For example, a male student from a small school may feel humiliated in his failure to make an athletic team. Few students among the possible thousands in a large school would be ridiculed by their peers for such a failure. A similar situation exists in regard to grade level. In many cases, underclassmen can not be expected to possess the maturity, ability or physical size to become involved in certain school activities. Failure among underclassmen in such situations would be commonplace and thus not seriously detrimental. The self-concept results seem to be supportive of such arguments. Both the priority discrepancy scores and the frequency of participation were most closely related to differences in self-concept among the small school upperclassmen. The fact that lower self-concept scores were produced by students perceiving their own priorities to be different from the expectancies of the school is especially interesting. Although one can never infer causality from correlational methodologies, the proposed relationship between self-concept and the participation variables seems plausible. A longitudinal study is presently underway to substantiate this research and provide additional insights into the large school, small school distinction.

The importance of this study lies in its theoretical and practical implications. As previously stated, this study links the ecological work of Barker and Gump much closer to a measured impact on the student. In addition, such research should prove of practical benefit to school administrators and guidance personnel. School personnel should be especially cognizant of the pressures on a student who because of ability or other factors is unable to participate in school activities. This study indicates that the upperclassmen in smaller schools may need special help in dealing with their own feelings of

personal worth. Perhaps special programming could be implemented into the curriculum to assist this group of students in dealing with this special problem.

Coleman (1961) contends that rather than facing a situation which is damaging to one's self-image, the student will physically or psychologically withdraw from the school as a source of influence. Put into the vernacular of the school administrator, physical alienation is represented by the problems of student dropouts or student absenteeism. Psychological alienation may manifest itself in student apathy or membership in a deviant subculture. Using measures of alienation such as those developed by Dean (1961), future research could profitably center upon determining if students with lower self-concepts are more likely to become alienated from the influence of the school environment.

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FOOTNOTES

1. Sample questionnaires are available upon request.

Table 1: Mean Activity Participation

Activity	School Size					
	Large		Small		F	
	Upper	Under	Upper	Under	Size	Grade
Athletics	1.13	1.14	1.55	1.86	45.00**	3.70*
Academic	.41	.32	.47	.33	.53	12.83**
Social	.19	.13	.39	.31	23.49**	4.01*
Fine Arts	.42	.42	.81	.79	34.98**	.81
Clubs	.46	.22	1.08	.69	93.21**	28.75**

* Fs significant $p < .05$ ** Fs significant $p < .01$

Table 2: Significance of Predictors and Total Equation

Size/Class	Predictors						
	X_{ath}	X_{aca}	X_{soc}	X_{art}	X_{club}	R	R^2
Small-Under	.01	.01				.36	.13
Large-Under		.01		.01		.39	.15
Small-Upper	.01	.01			.01	.41	.17
Large-Upper	.01				.01	.30	.09